



FEDERAL PUBLIC SERVICE COMMISSION  
COMPETITIVE EXAMINATION-2018  
FOR RECRUITMENT TO POSTS IN BS-17  
UNDER THE FEDERAL GOVERNMENT

Roll Number

**ZOOLOGY**

<b>TIME ALLOWED: THREE HOURS</b>	<b>PART-I (MCQS)</b>	<b>MAXIMUM MARKS = 20</b>
<b>PART-I(MCQS): MAXIMUM 30 MINUTES</b>	<b>PART-II</b>	<b>MAXIMUM MARKS = 80</b>
<b>NOTE: (i) Part-II is to be attempted on the separate Answer Book.</b>		
<b>(ii) Attempt ONLY FOUR questions from PART-II. ALL questions carry EQUAL marks.</b>		
<b>(iii) All the parts (if any) of each Question must be attempted at one place instead of at different places.</b>		
<b>(iv) Candidate must write Q. No. in the Answer Book in accordance with Q. No. in the Q.Paper.</b>		
<b>(v) No Page/Space be left blank between the answers. All the blank pages of Answer Book must be crossed.</b>		
<b>(vi) Extra attempt of any question or any part of the attempted question will not be considered.</b>		

**PART – II**

- Q. No. 2.** Discuss in detail how do the marine and terrestrial animals meet the problems of salt and water balance? (20)
- Q. No. 3.** Differentiate between endocrine and exocrine glands. Through how many kinds of receptors do the hormones act and how is the secretion rate controlled? (20)
- Q. No. 4.** Arthropod exoskeleton is the most complex of invertebrate integuments. Describe its structure and explain the difference in the way the cuticle is hardened in Crustaceans and in insects. (20)
- Q. No. 5.** Members of such a large and diverse phylum as mollusca impact humans in many ways. Discuss. Also name classes of the phylum with two differential characters for each. (20)
- Q. No. 6.** (a) Discuss parasitic adaptation and medical importance with respect to nematodes. (20)  
(b) Write note on structural and functional adaptation in mammals.
- Q. No. 7.** Metamerism profoundly influences virtually every aspect of annelid structure and function, such as the anatomical arrangement of organs that are coincidentally with Metamerism. Discuss through logical reasoning. (20)
- Q. No. 8.** Write short notes on any **FOUR** of the following: (05 each) (20)  
(a) Gas exchange in reptiles  
(b) Carbohydrates: Nature's Most Abundant Organic Substance  
(c) Mendel's Law of inheritance  
(d) Food chain  
(e) Social Behaviour and its impact on individuals  
(f) Composition of blood

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